

SAFETY DATA SHEET

1. Identification	
Product identifier	Anti-SLC7A5 (LAT1) (Human) pAb
Other means of identification	
Product code	BMP011
Recommended use	Research use only.
Recommended restrictions	None known.
Manufacturer / Importer / Sup	plier / Distributor information
Manufacturer and	Medical & Biological Laboratories (MBL) Co., Ltd.
Supplier (Asia)	4-5-3 Sakae, Naka-ku, Nagoya, Aichi 460-0008, Japan
Telephone number	+81-52-238-1901 (Monday to Friday, 9 AM to 5 PM JST)
Fax	+81-52-238-1440
E-mail	sds-support@mbl.co.jp
URL	http://www.mbl.co.jp/e/index.html
Contact person	SDS Support
Supplier	MBL International Corporation
	15A Constitution Way, Woburn, MA 01801, USA
Telephone number	+1-800-200-5459, option 3
Fax	+1-781-939-6963
E-mail	tech@mblintl.com
URL	http://www.mblintl.com/
Contact person	Technical Service

2. Hazard(s) identification

Physical hazards	Not classified.
Health hazards	Not classified.
OSHA hazard(s)	Not classified.
Label elements	
Hazard symbol	None.
Signal word	None.
Hazard statement	None.
Precautionary statement	
Prevention	Observe good industrial hygiene practices.
Response	Wash thoroughly after handling.
Storage	Store away from incompatible materials.
Disposal	Dispose of waste and residues in accordance with local authority requirements.
Hazard(s) not otherwise classified (HNOC)	None.

3. Composition/Information on ingredients

Mixtures		
Chemical name	CAS number	%
Glycerol (Glycerin)	56-81-5	50 - 60
Composition comments	All concentrations are in percent by wei	ght unless ingredient is a gas. Gas concentrations

are in percent by volume.

4. First aid measures

In	hal	latio	n

Skin contact

Move to fresh air. Get medical attention if discomfort develops or persists. Remove contaminated clothing. Wash with soap and water. Get medical attention if irritation develops or persists. Wash contaminated clothing before reuse.

Eye contact	Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention if irritation develops or persists.
Ingestion	Drink plenty of water. Seek medical advice.
Most important symptoms/ effects, acute and delayed	Irritation of eyes and mucous membranes. Mild skin irritation.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	Get medical attention if any discomfort develops.

5. Fire fighting measures

Suitable extinguishing media Unsuitable extinguishing media	Water. Foam. Dry powder. Carbon dioxide (CO2). None known.
Specific hazards arising from the chemical	Fire or high temperatures create: Carbon oxides.
Special protective equipment and precautions for	Self-contained breathing apparatus, operated in positive pressure mode and full protective clothing must be worn in case of fire.
firefighters	
Fire-fighting equipment/instructions	Move containers from fire area if you can do that without risk. Use water spray to cool unopened containers. Prevent entry to sewers and pubic waters.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Ensure adequate ventilation. Avoid inhalation of mist and contact with skin and eyes. For personal protection, see Section 8 of the SDS.
Methods and materials for containment and cleaning up	Dike far ahead of liquid spill for later disposal. Small Spills: Absorb spillage with suitable absorbent material. Clean contaminated surface thoroughly. After removal, flush contaminated area thoroughly with water. Large Spills: Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.
Environmental precautions	Prevent further leakage or spillage if safe to do so.
7. Handling and storage	
Precautions for safe handling	Provide adequate ventilation. Use work methods which minimize production of vapors and mists. Avoid inhalation of mist and contact with skin and eyes. Wash hands after handling. Observe good industrial hygiene practices.

Conditions for safe storage, Keep container tightly closed. Store away from incompatible materials.

including any incompatibilities

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air	Contaminants (29 CFR 1	910.1000)	
Components	Туре	Value	Form
Glycerol (CAS 56-81-5)	PEL	5 mg/m3	Respirable fraction.
		15 ma/m3	Total dust.

omponents	Туре	Value	Form
/cerol (CAS 56-81-5)	TWA	10 mg/m3	Mist.

Exposure guidelines No exposure standards allocated.

Appropriate engineering Provide adequate ventilation and minimize the risk of inhalation of vapors and mists.

controls

Individual protection measures, such as personal protective equipment

Eye/face protectionWear safety glasses.Skin protection

Hand protection	Wear protective gloves. Nitrile gloves are recommended, but be aware that the liquid may penetrate the gloves. Frequent change is advisable. Suitable gloves can be recommended by the glove supplier.
Other	Wear appropriate clothing to prevent repeated or prolonged skin contact. Wear protective gloves. Nitrile gloves are recommended, but be aware that the liquid may penetrate the gloves. Frequent change is advisable. Suitable gloves can be recommended by the glove supplier.
Respiratory protection	In case of inadequate ventilation or risk of inhalation of vapors, use suitable respiratory equipment with combination filter (gas filter/dust filter). Seek advice from local supervisor.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice. Wash hands after handling. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance Physical state Form Color Odor Odor threshold pH Melting point/freezing point Initial boiling point and boiling range Flash point Evaporation rate Flammability (solid, gas) Upper/lower flammability or e Flammability limit - lower (%) Flammability limit - upper (%) Vapor pressure Vapor density Relative density Solubility(ies) Partition coefficient (<i>n</i> -octanol/water)	
Form Color Odor Odor threshold pH Melting point/freezing point Initial boiling point and boiling range Flash point Evaporation rate Flammability (solid, gas) Upper/lower flammability or e Flammability limit - lower (%) Flammability limit - upper (%) Vapor pressure Vapor density Relative density Solubility(ies) Partition coefficient (<i>n</i> -octanol/water)	
Color Odor Odor threshold pH Melting point/freezing point Initial boiling point and boiling range Flash point Evaporation rate Flammability (solid, gas) Upper/lower flammability or e Flammability limit - lower (%) Flammability limit - upper (%) Vapor pressure Vapor density Relative density Solubility(ies) Partition coefficient (<i>n</i> -octanol/water)	Liquid.
Odor Odor threshold pH Melting point/freezing point Initial boiling point and boiling range Flash point Evaporation rate Flammability (solid, gas) Upper/lower flammability or e Flammability limit - lower (%) Flammability limit - upper (%) Vapor pressure Vapor density Relative density Solubility(ies) Partition coefficient (<i>n</i> -octanol/water)	Viscous liquid.
Odor threshold pH Melting point/freezing point Initial boiling point and boiling range Flash point Evaporation rate Flammability (solid, gas) Upper/lower flammability or e Flammability limit - lower (%) Flammability limit - upper (%) Vapor pressure Vapor density Relative density Solubility(ies) Partition coefficient (<i>n</i> -octanol/water)	Colorless.
pH Melting point/freezing point Initial boiling point and boiling range Flash point Evaporation rate Flammability (solid, gas) Upper/lower flammability or e Flammability limit - lower (%) Flammability limit - upper (%) Vapor pressure Vapor density Relative density Solubility(ies) Partition coefficient (<i>n</i> -octanol/water)	Odorless.
Melting point/freezing point Initial boiling point and boiling range Flash point Evaporation rate Flammability (solid, gas) Upper/lower flammability or e Flammability limit - lower (%) Flammability limit - upper (%) Vapor pressure Vapor density Relative density Solubility(ies) Partition coefficient (<i>n</i> -octanol/water)	Not available.
Initial boiling point and boiling range Flash point Evaporation rate Flammability (solid, gas) Upper/lower flammability or e Flammability limit - lower (%) Flammability limit - upper (%) Vapor pressure Vapor density Relative density Solubility(ies) Partition coefficient (<i>n</i> -octanol/water)	Neutral.
boiling range Flash point Evaporation rate Flammability (solid, gas) Upper/lower flammability or e Flammability limit - lower (%) Flammability limit - upper (%) Vapor pressure Vapor density Relative density Solubility(ies) Partition coefficient (<i>n</i> -octanol/water)	Not available.
Flash point Evaporation rate Flammability (solid, gas) Upper/lower flammability or e Flammability limit - lower (%) Flammability limit - upper (%) Vapor pressure Vapor density Relative density Solubility(ies) Partition coefficient (<i>n</i> -octanol/water)	Not available.
Evaporation rate Flammability (solid, gas) Upper/lower flammability or e Flammability limit - lower (%) Flammability limit - upper (%) Vapor pressure Vapor density Relative density Solubility(ies) Partition coefficient (<i>n</i> -octanol/water)	
Flammability (solid, gas) Upper/lower flammability or e Flammability limit - lower (%) Flammability limit - upper (%) Vapor pressure Vapor density Relative density Solubility(ies) Partition coefficient (<i>n</i> -octanol/water)	Not available.
Upper/lower flammability or e Flammability limit - lower (%) Flammability limit - upper (%) Vapor pressure Vapor density Relative density Solubility(ies) Partition coefficient (<i>n</i> -octanol/water)	Not available.
Flammability limit - lower (%) Flammability limit - upper (%) Vapor pressure Vapor density Relative density Solubility(ies) Partition coefficient (<i>n</i> -octanol/water)	Not applicable.
- lower (%) Flammability limit - upper (%) Vapor pressure Vapor density Relative density Solubility(ies) Partition coefficient (<i>n</i> -octanol/water)	xplosive limits
Flammability limit - upper (%) Vapor pressure Vapor density Relative density Solubility(ies) Partition coefficient (<i>n</i> -octanol/water)	Not available.
- upper (%) Vapor pressure Vapor density Relative density Solubility(ies) Partition coefficient (<i>n</i> -octanol/water)	
Vapor pressure Vapor density Relative density Solubility(ies) Partition coefficient (<i>n</i> -octanol/water)	Not available.
Vapor density Relative density Solubility(ies) Partition coefficient (<i>n</i> -octanol/water)	
Relative density Solubility(ies) Partition coefficient (<i>n</i> -octanol/water)	Not available.
Solubility(ies) Partition coefficient (<i>n</i> -octanol/water)	Not available.
Partition coefficient (<i>n</i> -octanol/water)	Not available.
(<i>n</i> -octanol/water)	Soluble in water
	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.

10. Stability and reactivity

Reactivity Chemical stability	The product is non-reactive under normal conditions of use, storage and transport. Stable at normal conditions.
Possibility of hazardous	Hazardous reactions do not occur.
reactions Conditions to avoid	Strong heating. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	None known.

11. Toxicological information

Information on likely routes of exposure

Ingestion	Ingestion may cause irritation and malaise.
Inhalation	Under normal conditions of intended use, this material is not expected to be an inhalation
	hazard.

Skin contact Eye contact Symptoms related to the physical, chemical and	May cause skin irritation. Causes skin irritation. May cause eye irritation on direct contact. Causes eye irritation. Irritation of eyes and mucous membranes. Mild skin irritation.	
toxicological characteristics		
Information on toxicological effects		
Acute toxicity	Ingestion may cause irritation and malaise.	
Skin corrosion/irritation	May cause skin irritation.	
Serious eye damage/eye	May cause eye irritation on direct contact.	
irritation		
Respiratory sensitization	Not classified.	
Skin sensitization	Not a skin sensitizer.	
Germ cell mutagenicity	Not classified.	
Carcinogenicity	IARC not listed.	
Reproductive toxicity	Not classified.	
Specific target organ toxicity	Knowledge about health hazard is incomplete.	
 single exposure 		
Specific target organ toxicity - repeated exposure	Knowledge about health hazard is incomplete.	
Aspiration hazard	Not classified.	
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12. Ecological information	on	
Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills have a harmful or damaging effect on the environment.	
Persistence and degradability	The product is biodegradable.	
Bioaccumulative potential	The product is not bioaccumulating.	
Partition coefficient <i>n</i> -octanol / water (log Kow)		
	Glycerol (CAS 56-81-5) -1.76	
Mobility in soil	Expected to be highly mobile in soil.	
Mobility in general	The product is water soluble and may spread in water systems.	
Other adverse effects	No data available.	

13. Disposal considerations

Disposal instructions	Dispose of in accordance with all applicable regulations. Do not discharge into drains, water courses or onto the ground.
Local disposal regulations	Dispose of in accordance with local regulations.
Hazardous waste code	Not regulated.
Waste from residues / unused	Dispose of in accordance with local regulations.
products	
Contaminated packaging	Dispose of in same manner as unused product.
Hazardous waste code Waste from residues / unused products	Dispose of in accordance with local regulations. Not regulated. Dispose of in accordance with local regulations.

14. Transport information

DOT	Not regulated as a dangerous good.
ΙΑΤΑ	Not regulated as a dangerous good.
IMDG	Not regulated as a dangerous good.
Transport in bulk according	Not applicable.
to Annex II of MARPOL 73/78	
and the IBC Code	

15. Regulatory information

US federal regulations This product is hazardous according to OSHA 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)Not regulated.OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)Not regulated.CERCLA Hazardous Substance List (40 CFR 302.4)Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Yes

Yes

Hazard categories		Immediate Hazard - Yes
		Delayed Hazard - No
		Fire Hazard - No
		Pressure Hazard - No
		Reactivity Hazard - No
SARA 302 Extremely ha	zardous substance	No
SARA 311/312 Hazardous chemical		Yes
Other federal regulations		
Clean Air Act (CAA) Sec	tion 112 Hazardous Air Pollutants (HAPs) List	Not regulated.
Clean Air Act (CAA) Sec	tion 112(r) Accidental Release Prevention (40 CFR 68.130)	Not regulated.
Safe Drinking Water Act	(SDWA)	Not regulated.
Drug Enforcement Admi	inistration (DEA). List 2, Essential Chemicals (21 CFR	Not listed.
1310.02(b) and 1310.04(f	i)(2) and Chemical Code Number	
Drug Enforcement Admi	nistration (DEA). List 1 & 2 Exempt Chemical Mixtures (21	Not regulated.
CFR 1310.12(c))		
DEA Exempt Chemical M	lixtures Code Number	Not regulated.
Food and Drug Adminis	tration (FDA)	Not regulated.
US state regulations	This product does not contain a chemical known to the State of	California to cause cancer,
5	birth defects or other reproductive harm.	
Massachusetts RTK - Substance List		Glycerol (CAS 56-81-5)
New Jersey Worker and Community Right-to-Know Act		Not regulated.
Pennsylvania RTK - Hazardous Substances		Glycerol (CAS 56-81-5)
Rhode Island RTK		Glycerol (CAS 56-81-5)
California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT)		Not listed.
International Inventories		
Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	EC Inventory	Yes
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes

Philippines United States & Puerto Rico

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s). A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Toxic Substances Control Act (TSCA) Inventory

Philippine Inventory of Chemicals and Chemical Substances (PICCS)

16. Other information

Issue date	09/28/2011
Revision date	09/30/2016
Version	10
Further information	Not available.
References	IUCLID
Disclaimer	This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.